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(JP). 星野 弘典 (HOSHINO,Hironori) [JP/JP]; 〒143-8521 東京都大田区大森西5丁目28番6号ナイルス株式会社内 Tokyo (JP). 福田 岳 (FUKUDA,Takeshi) [JP/JP]; 〒143-8521 東京都大田区大森西5丁目28番6号ナイルス株式会社内 Tokyo (JP).

(21)国際出願番号: PCT/JP2003/008778

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— AU, CA, CN, KR, ヨーロッパ特許 (DE, FR, SE)の指定のための出願し及び特許を与える出願人の資格に関する申立て (規則4.17(ii))

(71)出願人(米国を除く全ての指定国について): ナイルス株式会社 (NILES CO., LTD.) [JP/JP]; 〒143-8521 東京都大田区大森西5丁目28番6号 Tokyo (JP).

— AU, CA, CN, KR, ヨーロッパ特許 (DE, FR, SE)の指定のための先の出願に基づく優先権を主張する出願人の資格に関する申立て (規則4.17(iii))

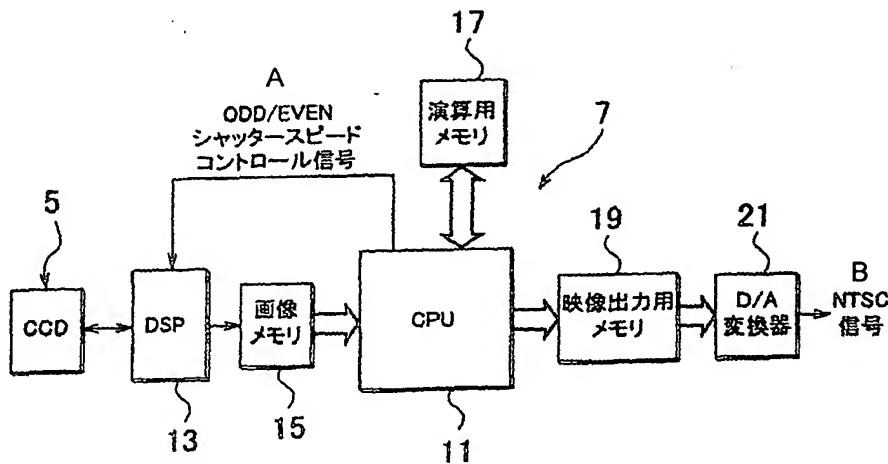
(72)発明者; および

[統葉有]

(75)発明者/出願人(米国についてのみ): 河村 弘之 (KAWAMURA,Hiroyuki) [JP/JP]; 〒143-8521 東京都大田区大森西5丁目28番6号 ナイルス株式会社内 Tokyo

(54) Title: IMAGE PICKUP SYSTEM

(54)発明の名称: 撮像システム



A...ODD/EVEN SHUTTER SPEED CONTROL SIGNAL

19...VIDEO OUTPUT MEMORY

15...IMAGE MEMORY

21...D/A CONVERTER

17...CALCULATION MEMORY

B...NTSC SIGNAL

(57) Abstract: An image pickup system includes an IR lamp for applying infra-red ray forward, a CCD camera (5) for imaging the forward and converting it into an electric signal, and an image processing unit (7) for changing the signal accumulation time of the CCD camera (5) by a predetermined cycle and continuously and periodically outputting images of different exposure amounts. The image processing unit (7) prolongs the images of different exposure amounts in the longitudinal direction and averages signal levels of the both images after prolonged, thereby forming a combined image.

[統葉有]

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## INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP03/08778

A. CLASSIFICATION OF SUBJECT MATTER  
Int.Cl<sup>7</sup> H04N5/235, 5/225, 5/33, 5/335

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

Int.Cl<sup>7</sup> H04N5/235, 5/225, 5/33, 5/335

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Jitsuyo Shinan Koho 1922-1996 Jitsuyo Shinan Toroku Koho 1996-2003  
Kokai Jitsuyo Shinan Koho 1971-2003 Toroku Jitsuyo Shinan Koho 1994-2003

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	JP 11-201741 A (Omron Corp.), 30 July, 1999 (30.07.99), Full text; Figs. 1 to 24 (Family: none)	1-6
X	JP 5-56343 A (Olympus Optical Co., Ltd.), 05 March, 1993 (05.03.93), Full text; Figs. 1 to 4 (Family: none)	1-6
A	JP 2001-148805 A (Matsushita Electric Industrial Co., Ltd.), 29 May, 2001 (29.05.01), Column 23, line 25 to column 24, line 14; Figs. 25 to 27 & WO 01/39490 A1 & EP 1237363 A1 & CN 1413411 T	1-6

 Further documents are listed in the continuation of Box C.  See patent family annex.

- \* Special categories of cited documents:
- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
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- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
- "&" document member of the same patent family

Date of the actual completion of the international search  
27 October, 2003 (27.10.03)Date of mailing of the international search report  
11 November, 2003 (11.11.03)Name and mailing address of the ISA/  
Japanese Patent Office

Authorized officer

Facsimile No.

Telephone No.

## INTERNATIONAL SEARCH REPORT

International application No.  
PCT/JP03/08778

## C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	JP 2000-228747 A (Olympus Optical Co., Ltd.), 15 August, 2000 (15.08.00), Full text; Figs. 1 to 16 (Family: none)	1-6
A	JP 11-98418 A (Toyota Central Research And Development Laboratories, Inc.), 09 April, 1999 (09.04.99), Column 7, line 38 to column 8, line 40; Figs. 10 to 13 (Family: none)	1-6